

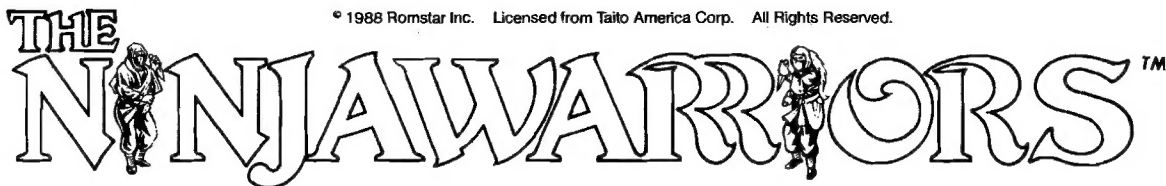
**ROMSTAR™ INC.**

THE  
NINJAWARRIORS™

© 1988 Romstar, Inc. Licensed from Taito America Corp. All Rights Reserved



**INSTRUCTION MANUAL**



## TABLE OF CONTENTS

	PAGE
I. LOCATION AND SETUP.....	1
II. DIP SWITCH SETTINGS .....	2
III. ADJUSTMENTS OF TV MONITORS.....	3
A. ADJUSTMENT ON COLOR VIDEO MONITOR.....	4
B. DETAIL EXPLANATION OF ADJUSTMENTS .....	5
C. CHECK POINTS IN CASE OF DIFFICULTY .....	6
IV. COIN DOOR MAINTENANCE.....	7
A. NOTES .....	8
V. LAYOUTS/MAIN HARNESS PINOUT/FACTORY SETTING.....	9
A. CONNECTOR H/CONNECTOR J/CONNECTOR K.....	10
C. CABINET DIMENSIONS FOR NINJAWARRIORS .....	12
VII. CONCLUSION	
A. LIMITED WARRANTY.....	13
B. FBI WARNING .....	14
C.COMMENTS .....	15

## LOCATION AND SETUP

### INSPECTION

1. Remove the game from its shipping carton.
2. Inspect the entire outside of it for any signs of damage.
  - ☐ Any scratches?, dents?, cracks?
  - ☐ Any broken controls?
  - ☐ Just look it over closely and make a note of any signs of damage.
3. Remove the shipping cleats from the bottom of the cabinet.
4. Install the four levelers, one at each corner of the cabinet.
  - ☐ Level the cabinet.
5. Open the cabinet and inspect the inside of the game for any signs of damage.
  - ☐ Also check to make sure all plug-in connectors on the wire harness are firmly seated.
  - ☐ Replug any connectors found unplugged. DO NOT FORCE PLUGS INTO CONNECTORS. DO NOT FORCE PLUGS TOGETHER. If it won't go on easily, assuming the keys are lined up, it either does not belong there or is damaged.
  - ☐ Make sure all printed circuit boards (P.C.B.'s) are firmly seated in their connectors. These connectors are also keyed. The P.C.B.'s will only go into them one way without being damaged.
  - ☐ Note the location of the game's serial number.
  - ☐ Check all major subassemblies to be sure they are mounted securely.

Power supply (s).

Control panel (s).

T.V. monitor (s).

Other P.C.B.'s and/or P.C.B. rack, etc.

Power Chassis.

6. Make a note of any problems that can't be easily corrected.
7. Call your distributor and/or service man about your problem list.

**NOTE: ALL connectors or plugs are keyed so they will only go together when all pins are properly lined up.**

# DIP SWITCH SETTING

## THE NINJAWARRIOR

### DIP SWITCH A

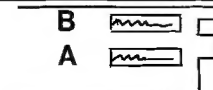
		1	2	3	4	5	6	7	8
CONTINUE MODE	* WITH	OFF							
	WITHOUT	ON							
NOT USED	*		OFF						
			ON						
TEST MODE	* NORMAL			OFF					
	TEST MODE			ON					
DEMO SOUND	* WITH				OFF				
	WITHOUT				ON				
COIN PRICING	1 COIN - 1 PLAY					OFF	OFF		
	1 COIN - 2 PLAY					ON	OFF		
COIN SLOT A	* 2 COIN - 1 PLAY					OFF	ON		
	2 COIN - 3 PLAY					ON	ON		
COIN PRICING	1 COIN - 1 PLAY							OFF	OFF
	1 COIN - 2 PLAY							ON	OFF
COIN SLOT B	* 2 COIN - 1 PLAY							OFF	ON
	2 COIN - 3 PLAY							ON	ON

\* ROMSTAR RECOMMENDED SETTING

### DIP SWITCH B

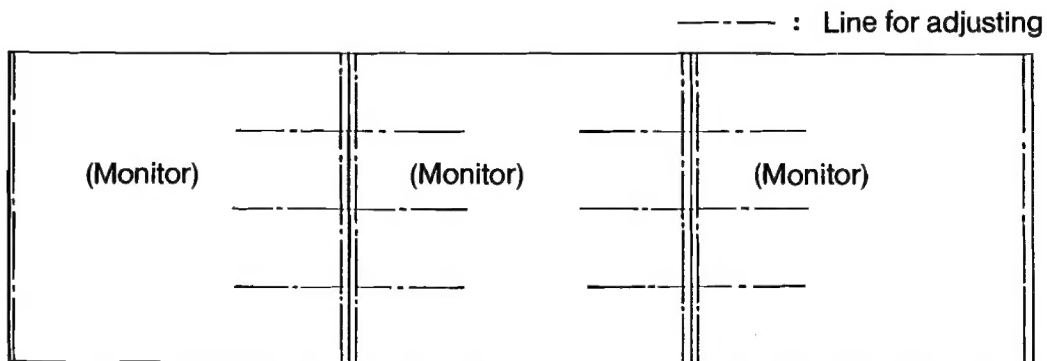
		1	2	3	4	5	6	7	8
DIFFICULTY	B	OFF	OFF						
	A	ON	OFF						
	* C	OFF	ON						
	D	ON	ON						
NOT USED	*			OFF	OFF				
				ON	ON				
				OFF	ON				
				ON	ON				
NOT USED	*					OFF			
						ON	OFF		
						OFF			
						ON	ON		
DISCOUNT PLAY WHEN CONTINUING	* WITH							OFF	
	WITHOUT							ON	
	*								OFF
									ON

\* ROMSTAR RECOMMENDED SETTING



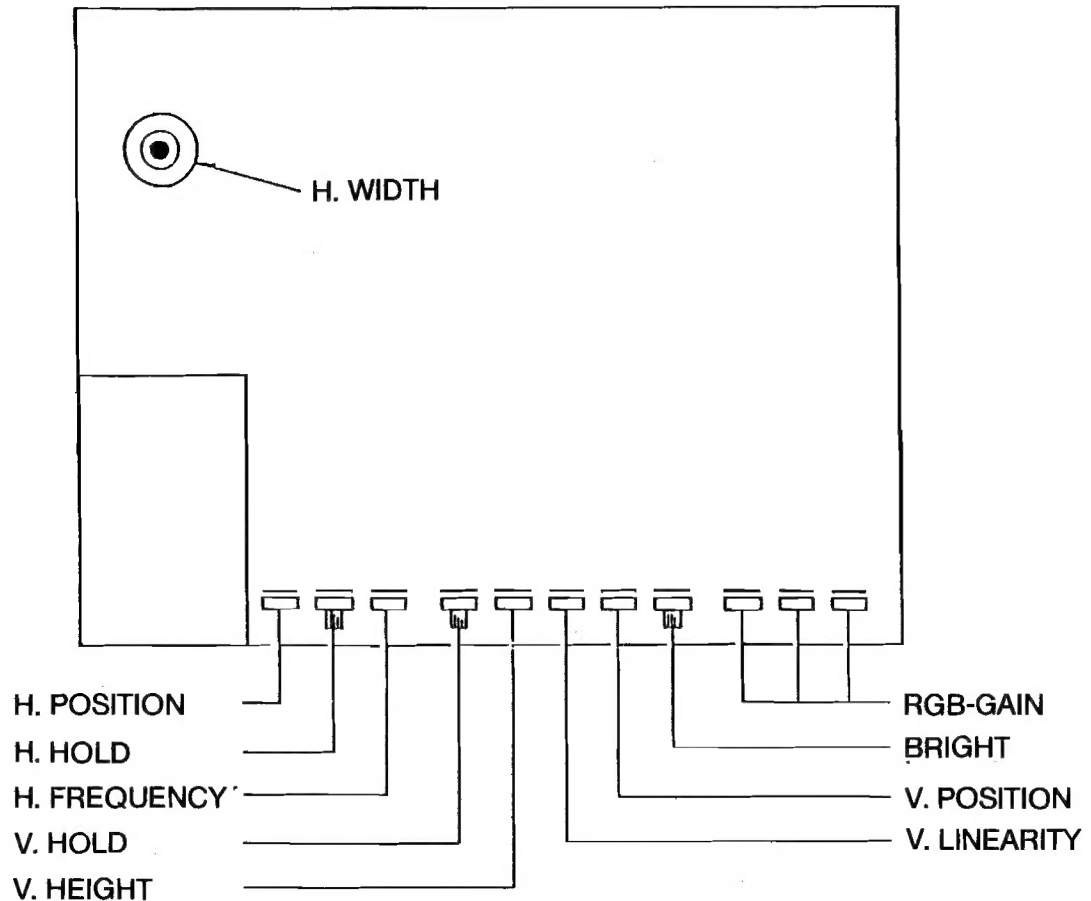
## ADJUSTMENTS OF TV MONITORS

- (1) Turn the DIP-SW (A-3) "ON" for the test mode.
- (2) When the color-bars appear on the screens, by pressing the 1-P side "DAGGER" button the screens change to the adjusting mode.
- (3) In the adjusting mode, each time by pressing the 1-P "DAGGER" button, the background screen changes.
- (4) Adjust the monitors when the screens are in the "city" mode, then make sure the adjustment is the same in the other modes.
- (5) The adjusting-screens do not move. Adjust them so that the standard adjusting-lines will be straight as shown below.



- (6) After finishing the adjustment, when the color-bars appear on the screens, by pressing the 1-P select button, the screens change to the test mode.  
If you need the monitor adjustments once more, turn the power switch "OFF" and "ON" again.

## ADJUSTMENT ON COLOR VIDEO MONITOR



- The adjustments have been done at the factory for the best performance, but if necessary, adjust the above pots by referring the explanation for each adjustment.

**NOTE:** Careless adjustment will cause failures such as out of synchronization, picture distortion, and high-voltage rising.

Never touch the white-paint-locked adjusting devices. Also, extra care must be taken when you adjust the TV monitor, because higher voltages exist there.

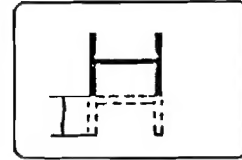
- Color distortion may happen depending on the setting condition of the machine. In that case, use a degaussing device or the degaussing switch.  
Keep magnets away from the screen, or they may result in color distortion.



## DETAIL EXPLANATION OF ADJUSTMENTS

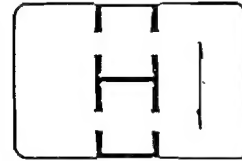
- V. POSITION

For adjusting the vertical raster position.



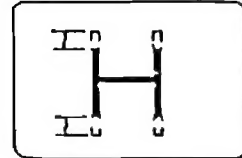
- V. HOLD

Use this when the picture moves up or down without stopping.



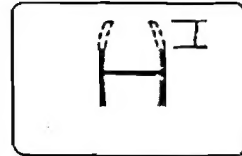
- V. HEIGHT

For adjusting the vertical screen size.



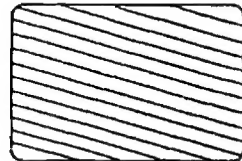
- V. LINEARITY

Adjust this Pot, if the upper or the lower part of the screen is shrunken.



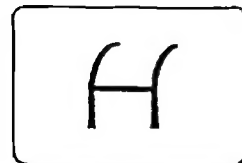
- H. FREQUENCY

Use this in the case that the adjustment can not be made by using the H. HOLD.



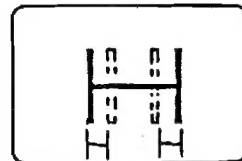
- H. HOLD

Use this when horizontal stripes appear on the screen or when you want to shift the picture slightly to the left or right.



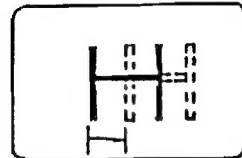
- H. POSITION

For adjusting the horizontal display position of the picture.



- H. WIDTH

For adjusting the horizontal screen size.



- BRIGHT (for adjusting the screen brightness).

Adjust this depending on the condition in location.

- R.G.B. - GAIN

R-GAIN . . . for adjusting the red color

G-GAIN . . . for adjusting the green color

B-GAIN . . . for adjusting the blue color

## CHECKPOINTS IN CASE OF DIFFICULTY

### No Raster/No Video

- Check A.C. line cord
- Check line fuse
- Check monitor brightness
- Check power switch and/or interlock switch
- Check all solder connections on line filter and transformer
- Check for proper orientation of the PCB connector

### Raster/No Video

- Check all PCB to monitor connections
- Check power supply voltage on PCB

### No Video/Game sounds can be heard

- Check monitor brightness
- Check all PCB to monitor connections

### Wrong colors

- Monitor needs degaussing
- Check for proper wiring between PCB and monitor
- Check monitor adjustment and adjust if necessary

### Wavy picture

- Check monitor ground is properly connected to monitor
- Be certain sync inputs are properly connected to monitor
- Check horizontal hold adjustment

### Horizontal/Vertical Roll

- Check horizontal and/or vertical hold adjustments
- Check for proper wiring of sync from PCB to monitor

### No sound

- Check for - 5 volts on edge connector of PCB
- Check volume control potentiometer adjustment
- Check for +12 volts on edge connector of PCB
- Check wiring from PCB to speaker
- Check speaker for low resistance between the "+" and "-" tabs

### Bad sound

- Check wiring to speaker for bad solder connections
- Check sound with another speaker

### No switch input

- Check ground connection to switch/es
- Check wiring between PCB and switch/es for proper connection
- Check switch/es with an ohmeter to verify proper operation

### Switch operates incorrect function

- Check wiring between PCB and switches for proper orientation
- Check wiring for shorts between switch inputs

### No coin meter

- Check wiring to coin meter
- Check that +5 volts is on "+" side of meter
- Verify a +5 volt meter is used

### When coin switch is made and meter pulses, the screen blanks out and/or game resets

- Verify that a meter with a diode is used
- If no diode is built in meter a 1N4004 can be used across the meter. Cathode to "+" side of meter and anode to "-" side of meter



## COIN DOOR MAINTENANCE

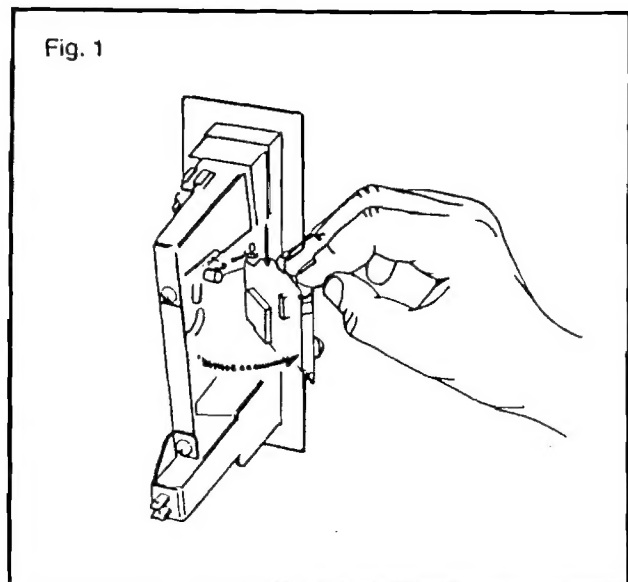


Fig. 1

The magnet that is fitted to the mechanism, should be kept clean from foreign particles. The magnet can be cleaned by swinging the gate open. (as shown in Fig. 1). Remove metal filings from the magnet by guiding the point of a screwdriver along the edges of the magnet, such that the filings cling to the screwdriver.

The mechanism can be cleaned by immersing in water using a small brush to clean the mechanism. Rinse the mechanism with boiling water and dry with compressed air.

### **Note:**

Since the Gold Mech relies on coins passing the magnet at a constant speed, the rejector must be free of dirt and grease which may slow down the coins. Do not lubricate the acceptor with oil as this slows down coins.

If the above procedures are not successful, check for worn, bent or damaged parts and replace where necessary.

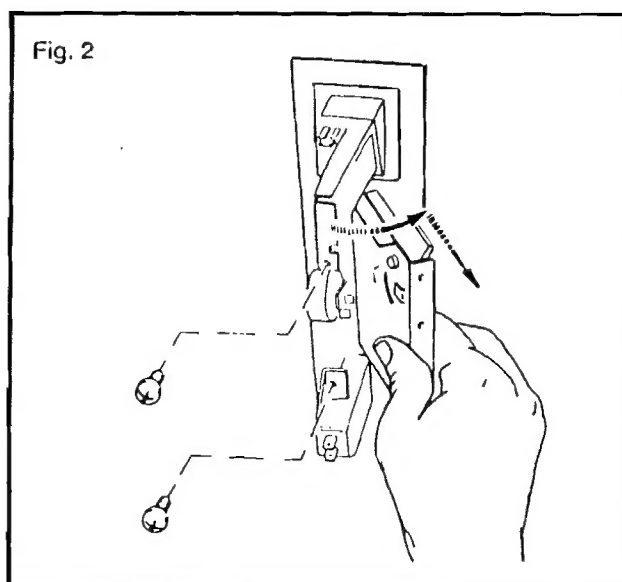


Fig. 2

### **Removal of Mechanism**

To remove the coin selector: Unscrew the two screws (as shown in Fig. 2) — swing rear of selector body away from the lock-out side and withdraw.

The Gold Mech Acceptors are designed to require a minimum of maintenance and field adjustment. Coins are checked by diameter and thickness, weight, metal content, bounce, and for ferromagnetic coins such as nickel and steel, a rim test also used.

### **Coin Switch**

The coin switch comes in two different spring tensions — identified by the color of the plastic boss at the wire's pivot point.

**Red:** Light tension — U.S. .25¢

**White:** Heavy tension — heavy foreign coins

## NOTES

# MAIN HARNESS PIN OUTPUT

## G CONNECTOR

ROMSTAR - THE NINJAWARRIORS

WIRE #	WIRE COLOR	SOLDER SIDE			COMPONENTS SIDE	WIRE COLOR	#
			A	1			
			B	2			
	DEAD PIN		C	3		DEAD PIN	
1	BLACK	GROUND	D	4	GROUND	BLACK	9
		GROUND	E	5	GROUND		
		POST (KEY)	F	6	POST (KEY)		
			H	7		DEAD PIN	
		COIN SWITCH B	J	8	COIN SWITCH A	WHITE	10
		COIN METER B	K	9	COIN METER A	BROWN	11
		COIN LOCKOUT B	L	10	COIN LOCKOUT A		
	DEAD PIN	TILT SWITCH	M	11	SERVICE SWITCH	DEAD PIN	
2	WHITE/GRAY	SELECT SWITCH B	N	12	SELECT SWITCH A	GRAY	12
3	WHITE/RED	2 PLAYER UP	P	13	1 PLAYER UP	RED	13
4	WHITE/BLUE	2 PLAYER DOWN	R	14	1 PLAYER DOWN	BLUE	14
5	WHITE/ORANGE	2 PLAYER RIGHT	S	15	1 PLAYER RIGHT	ORANGE	15
6	WHITE/YELLOW	2 PLAYER LEFT	T	16	1 PLAYER LEFT	YELLOW	16
			U	17			
			V	18			
			W	19			
	DEAD PIN		X	20		DEAD PIN	
7	WHITE/GREEN	2 PLAYER DAGGER	Y	21	1 PLAYER DAGGER	GREEN	17
8	WHITE/PURPLE	2 PLAYER NINJASTAR	Z	22	1 PLAYER NINJASTAR	PURPLE	18

**\* FACTORY SETTING PLEASE SET THE NINJAWARRIOR PCB AS FOLLOWS:**

DESCRIPTION	SETTING	ADJUSTMENT	POSITION	DIP BANK
CONTINUE MODE	WITH	OFF	1	A
TEST MODE	NORMAL	OFF	3	A
DEMO SOUND	WITH	OFF	4	A
COIN A	2 COIN 1 PLAY	OFF/ON	5/6	A
COIN B	2 COIN 1 PLAY	OFF/ON	7/8	A
DIFFICULTY	C	OFF/ON	1/2	B
DISCOUNT PLAY WHEN CONTINUING	WITH	OFF	7	B

**NOTE: ALL OTHER POSITIONS SHOULD BE OFF.**

## CONNECTOR H

## CONNECTOR J

## CONNECTOR K

POSITION	H CONNECTOR	WIRE COLOR
1	GROUND	BLACK
2	GROUND	BLACK
3	GROUND	BLACK
4	GROUND	BLACK
5	+5 VDC	RED
6	+5 VDC	RED
7	+5 VDC	RED
8	-5 VDC	WHITE
9	+12 VDC	YELLOW
10	POST	KEY
11		
12	+12 VDC	YELLOW

POSITION	J CONNECTOR	WIRE COLOR
1	VIDEO R (GROUND)	BLACK
2	VIDEO R (SYNC)	GRAY
3	VIDEO R (BLUE)	BLUE
4	VIDEO R (GREEN)	GREEN
5	VIDEO R (RED)	RED
6	VIDEO C (GROUND)	BLACK
7	VIDEO C (SYNC)	GRAY
8	VIDEO C (BLUE)	BLUE
9	VIDEO C (GREEN)	GREEN
10	VIDEO C (RED)	RED
11	VIDEO L (GROUND)	BLACK
12	VIDEO L (SYNC)	GRAY
13	VIDEO L (BLUE)	BLUE
14	VIDEO L (GREEN)	GREEN
15	VIDEO L (RED)	RED

POSITION	K CONNECTOR	WIRE COLOR
1	SPEAKER R+	WHITE
2	SPEAKER R—	BLACK
3	SPEAKER L+	WHITE/BLACK
4	SPEAKER L—	BLACK/WHITE

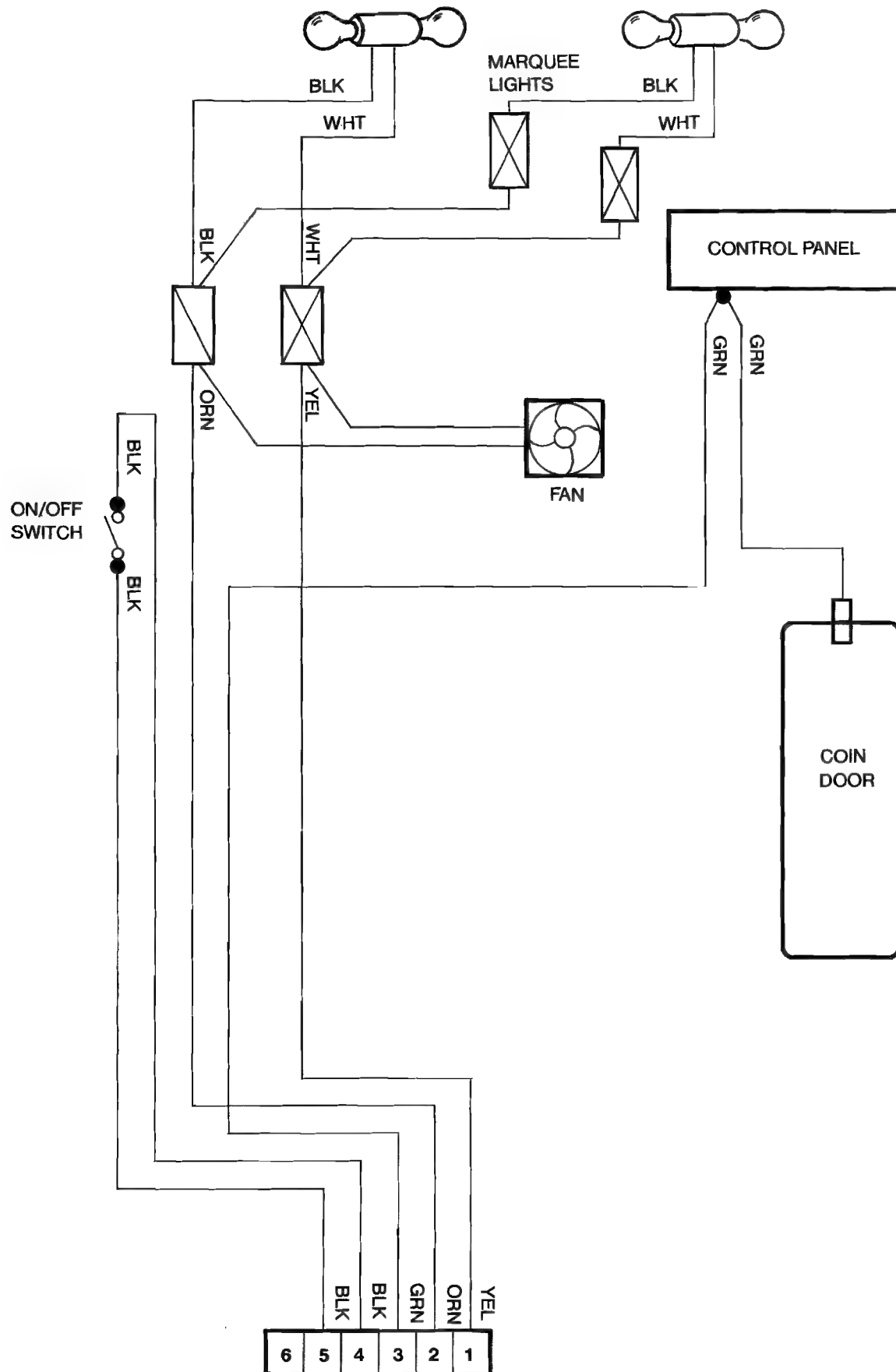
### \* J CONNECTOR

VIDEO R → RIGHT VIDEO

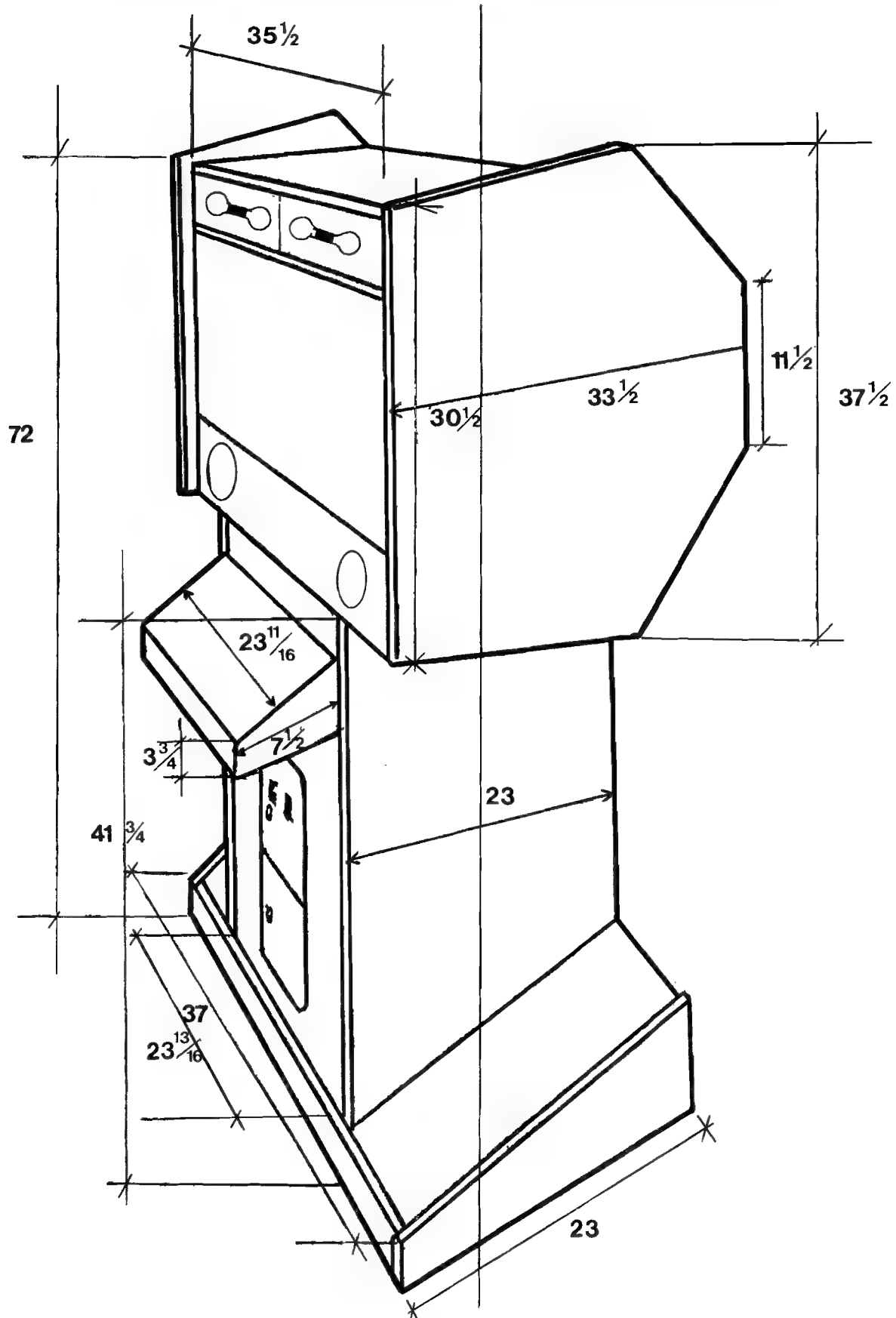
VIDEO C → CENTER VIDEO

VIDEO L → LEFT VIDEO

## AC AND GROUND SIDEWALL DISC PLUG



# CABINET DIMENSIONS FOR NINJAWARRIORS



## **LIMITED WARRANTY**

ROMSTAR INC. ("Seller"), warrants only to the initial purchaser of its products that the items listed below are free from defects in material and workmanship under normal use and service for the warranty periods specified:

- |                           |           |
|---------------------------|-----------|
| A. Printed Circuit Boards | (60) days |
| B. Electronic Components  | (30) days |
| C. Television Monitors    | (30) days |

No other parts of Seller's products are warranted.

Warranty periods are effective from the initial date of shipment from Seller to its authorized distributors.

Seller's sole liability shall be, at its option, to repair or replace products which are returned to Seller during the warranty periods specified, provided:

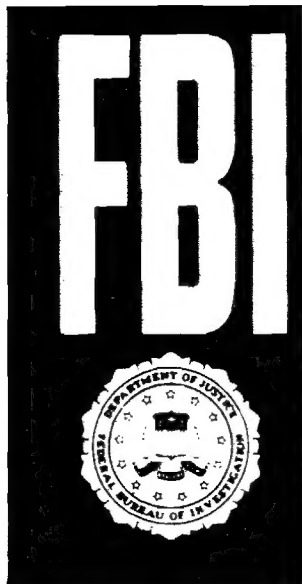
- A. Seller is notified promptly upon discovery by buyer that stated products are defective.
- B. Such products are properly packaged and then returned, prepaid to Seller's plant.

This warranty does not apply to any parts damaged during shipping or handling, or due to improper installation or usage, or alteration. In no event shall Seller be liable for any anticipated profits, loss of profits, loss of use, incidental or consequential damages or any other losses incurred by the customer in connection with the purchase of Romstar Inc. product.

### **(WARRANTY DISCLAIMER)**

EXCEPT AS SPECIFICALLY PROVIDED IN A WRITTEN CONTRACT BETWEEN SELLER AND PURCHASER, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.





## **WARNING**

Federal law provides severe civil and criminal penalties for the unauthorized reproduction, distribution, or exhibition of copyrighted audiovisual works and video games.

The Federal Bureau of Investigation investigates allegations of criminal copyright infringement.

## COMMENTS:

Your comments will assist Romstar Inc. in improving our product. Your comments are an important part of preparing new games/manuals.

If you have any technical questions regarding our games or are requesting additional information, please contact our Customer Service Department.

Fill in if you wish a reply:

Name \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Area Code \_\_\_\_\_ Phone \_\_\_\_\_

☐ Distributor

☐ Operator

☐ Other \_\_\_\_\_

**ROMSTAR<sup>TM</sup> inc.**

**ROMSTAR INC.**  
22857 Lockness Avenue  
Torrance, CA 90501